UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,909	08/29/2001	Jakob Barak	4873CIPCON	7948

7590 10/06/2005

Samuels, Gauthier & Stevens LLP
Suite 3300
225 Franklin Street
Boston, MA 02110

EXAMINER	
HWANG, VICTOR KENNY	
ART UNIT	**PAPER NUMBER**
3764	

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/941,909
Filing Date: August 29, 2001
Appellant(s): BARAK ET AL.

Matthew E. Connors
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 27, 2005 appealing from the Office action mailed March 23, 2004.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner.

Rejection of claims 29-33, 35, 36, 39-41, 73-75, 78-81, 83-90, 92-95, 97-103, 105, 108-110, 112-116, 118-128, 131-133, 135 and 138-140 under 35 USC 103(a) over *Dye* (US Pat. 5,795,312) in view of *Schneider* (US Pat. 4,206,751) and *Ericson* (US Pat. 3,424,151).

Rejection of claims 34, 42, 82, 91, 104, 111, 117 and 134 under 35 USC 103 over *Dye* (US Pat. 5,795,312) in view of *Schneider* (US Pat. 4,206,751), *Ericson* (US Pat. 3,424,151) and *Dye et al.* (US Pat. 4,029,087).

Rejection of claims 37, 38, 76, 77, 106, 107, 136 and 137 under 35 USC 103(a) over *Dye* (US Pat. 5,795,312) in view of *Schneider* (US Pat. 4,206,751), *Ericson* (US Pat. 3,424,151) and *Cariapa et al.* (US Pat. 5,891,065).

Rejection of claim 141 under 35 USC 103(a) over *Dye* (US Pat. 5,795,312) in view of *Schneider* (US Pat. 4,206,751), *Ericson* (US Pat. 3,424,151), *Cariapa et al.* (US Pat. 5,891,065) and *Dye et al.* (US Pat. 4,029,087).

The rejections have been withdrawn not because of Appellant's arguments that the control means does not determine a treatment specificity of each cell and a timing sequence for inflating of each cell based on the determined treatment specificity of each cell, but because it is improper to further modify the modifying reference of *Schneider* (US Pat. 4,206,751) with a further modifying reference *Ericson* (US Pat. 3,424,151).

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 92, 93, 96-98, 104, 112-116, 118 and 122-125 are rejected under 35 U.S.C. 102(b) as being anticipated by *Ericson* (US Pat. 3,424,151). *Ericson* discloses a device

for applying pressure to a body limb having a primary axis, the device comprising an inflatable cell. The inflatable cell includes at least two intra-cell compartments (Fig. 13). Three intra-cell compartments (Figs. 1-9) and four intra-cell compartments (Figs. 10 and 12) are also disclosed. The intra-cell compartments are confluent with each intra-cell compartment being elongated in a direction of the primary axis. Note that elongation increases as the number of intra-cell compartments increases.

The inflatable cell further includes inner and outer shells of durable flexible material with the inner and outer shells bonded together to form a perimetric cell bond. The inner and outer shells are further bonded together, such as at 50, 52 and 53 in the inflatable cell with four intra-cell compartments shown in Figs. 10 and 12. The perimetric cell bond includes upper and lower perimetric cell bonds. The compartmental bonds 50, 52 and 53 are weldments that partly extend between the upper and lower perimetric cell bonds. The compartmental bonds include perforations 60 adjacent the perimetric bond to allow for confluent airflow between adjacent contiguous intra-cell compartments within the cell. The adjacent intra-cell compartments are spatially fixed relative to each other such that upon inflation, the cell becomes circumferentially constricted.

The inflatable cell has a first center point circumference of $N\pi r$ when the intra-cell compartments are deflated, such as shown in Fig. 7, and a second center point circumference $2Nr$ when the intra-cell compartments are inflated, such as shown in Figs. 8, 9, 12 and 13. The second center point circumference is less than the first center point circumference so as to provide circumferential constriction. During inflation, the compartmental bonds are drawn toward each other to decrease a distance therebetween and towards the center point of the intra-

cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction.

Since the inflatable cell of *Ericson* is constructed exactly as that of the claimed invention, the inflatable cell of *Ericson* would inherently have a ratio of the second center point circumference to the first point circumference of about 0.64. Applicant's disclosure of this ratio is dimensionless, meaning that it does not depend on any disclosed dimensions of the invention and therefore applies to all devices having the same essential construction as the claimed invention. The inflatable cell disclosed by *Ericson* satisfies this requirement. The center point circumference is decreased upon inflation by about 36%.

The inflatable cell also includes at least one self-operating valve 43 and a fluid inlet 42 to provide for inflation and deflation of the cell.

(10) Response to Argument

Appellant argues with respect to claim 92 that *Ericson* teaches sleeves designed to be used for a splint and thus, one would not want compression applied to a fractured limb, thereby subjecting the limb to further damage (page 24 of Brief).

First, there is no teaching that a splint should not apply pressure to a fractured limb. An inflatable splint or any splint would necessarily apply a degree of pressure to an injured limb, in order to limit the mobility of the limb to promote healing. This would be more true if the injured limb is one that encounters a lot of movement. Pressure on the limb would be necessary to immobilize it.

Secondly, while anticipation requires disclosure of each and every limitation of the claim at issue in a single prior art reference, it does not require such disclosure *in haec verba*. In re

Bode, 550 F.2d 656, 660, 193 USPQ 12, 16 (CCPA 1977). In addition, it does not require that the prior art reference "teach" what the applicant at issue teaches. Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983). Finally, Appellant is reminded that during examination, claim limitations are to be given their broadest reasonable reading. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). Therefore, though the preamble of claim 92 indicates that the invention claimed is a device for applying pressure to a body limb, the prior art reference is not required to also apply pressure to a body limb in the same manner as taught by Applicant, but is required to disclose each and every limitation of the claim.

Appellant next argues that *Ericson* explicitly teaches and illustrates that the outer wall 22 moves inwardly, not outwardly to be able to provide the claimed circumference constriction, to form a triangular shape (page 25 of Brief). The Examiner's reference to the drawing of Fig. 7 in the rejection was merely to show an example of a deflated device. Fig. 12 shows four intra-cell compartments that satisfies the claim limitation that the compartmental bonds of the intra-cell compartments, during inflation are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction. As the number of intra-cell compartments increases, the easier it is to see that the compartmental bonds 50,52,53 and 54 are drawn towards each other during inflation.

Fig. 12 shows the device applied to a limb, and therefore distorts the inflated representation as compared to Applicant's drawing shown in Fig. 4B. The device of *Ericson* shown in Fig. 12 comprises each of the claimed structural limitations just as Applicant discloses

and would function in the same manner when inflated. The walls of the device of *Ericson* are substantially inelastic and would inflate in the same manner as Applicant's device.

Note the teachings of *Rosenberg et al.* (US Pat. 5,713,954), made of record in the Office action mailed March 18, 2003, which teaches in Figs. 1A, 1B and 3B and col. 4, line 66 to col. 5, line 42, that an inflatable cell having N number of intra-cell compartments, each intra-cell compartment having a radius r would have a center point circumference of $N\pi r$ when the cell is deflated and a center point circumference of $2Nr$ when the cell is inflated and that the compartmental bonds would be drawn towards each other to decrease a distance there between and towards the center point of the intra-cell compartments to decrease a distance therebetween so as to provide for circumferential constriction. *Rosenberg et al.* does not form a part of the rejection since *Ericson* discloses the necessary structure that satisfies the functional language of the claim.

Appellant argues with respect to claim 93 that *Ericson* does not explicitly teach or illustrate that the ratio of the second center point circumference to the first center point circumference is about 0.64 (pages 25-26 of Brief). As responded to above, the device as shown in the drawing of Fig. 12 shows four intra-cell compartments wherein the compartmental bonds of the intra-cell compartments, during inflation are drawn towards each other to decrease a distance therebetween and towards the center point of the intra-cell compartments to decrease a distance therebetween, so as to provide for circumferential constriction. Since the structure disclosed by *Ericson* is the same as that disclosed and claimed in claim 93, the device shown in Fig. 12 of *Ericson* would inherently have a ratio of the second center point circumference to the first center point circumference is about 0.64. This ratio is dimensionless, meaning that it does

not depend on any disclosed dimensions of the invention and therefore applies to all devices having the same essential construction as the claimed invention.

Note the teachings of *Rosenberg et al.* (US Pat. 5,713,954), made of record in the Office action mailed March 18, 2003, which teaches in Fig. 3B and col. 3, lines 41-61 that the length of the a cuff having *n* inflatable tubes of diameter *d* changes 36%. This length is equivalent to the circumference of the cuff when it is applied to the body. A decrease in the circumference by 36% is equivalent to a ratio of the second center point circumference to the first center point circumference of about 0.64. Again, *Rosenberg et al.* does not form a part of the rejection since *Ericson* discloses the necessary structure that satisfies the functional language of the claim.

Appellant argues with respect to claim 97 that the device of *Ericson* is to a splint and thus one would not want compression being applied to a fractured limb, thereby subjecting the limb to further damage or injury and that *Ericson* explicitly teaches and illustrates that the outer wall 22 moves inwardly, not outwardly to be able to provide the claimed circumference constriction, to form a triangular shape (pages 26-27 of Brief). These arguments are addressed above in response to the arguments with respect to claim 92.

Appellant argues with respect to claim 98 that *Ericson* does not explicitly teach or illustrate that the ratio of the second center point circumference to the first center point circumference is about 0.64 (page 28 of Brief). This argument is addressed above in response to the arguments with respect to claim 93.

Appellant argues with respect to claim 112 that the device of *Ericson* is to a splint and thus one would not want compression being applied to a fractured limb, thereby subjecting the limb to further damage or injury and that *Ericson* explicitly teaches and illustrates that the outer

wall 22 moves inwardly, not outwardly to be able to provide the claimed circumference constriction, to form a triangular shape (pages 28-30 of Brief). These arguments are addressed above in response to the arguments with respect to claim 92.

Appellant argues with respect to claim 113 that *Ericson* does not explicitly teach or illustrate that the center point circumference is decreased upon inflation by about 36% (page 30 of Brief). This argument is addressed above in response to the arguments with respect to claim 93.

Appellant argues with respect to claim 122 that the device of *Ericson* is to a splint and thus one would not want compression being applied to a fractured limb, thereby subjecting the limb to further damage or injury and that *Ericson* explicitly teaches and illustrates that the outer wall 22 moves inwardly, not outwardly to be able to provide the claimed circumference constriction, to form a triangular shape (pages 30-32 of Brief). These arguments are addressed above in response to the arguments with respect to claim 92.

Appellant argues with respect to claim 123 that *Ericson* does not explicitly teach or illustrate that the center point circumference is decreased upon inflation by about 36% (page 32 of Brief). This argument is addressed above in response to the arguments with respect to claim 93.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Victor Hwang

Conferees:

Gregory Huson

Angela Sykes